

REMARKS/ARGUMENTS

Claims 25 through 41 have been cancelled. Claims 42-64 have been added. Claims 1-24 and 42-64 are pending in this application. The application has been carefully reviewed in light of the Office Action mailed on November 29, 2002. Reconsideration of all outstanding rejections in light of the following remarks is respectfully requested.

Claims 1-12 are rejected under 35 U.S.C. § 102(a) as being unpatentable under Leedy (U.S. Patent No. 5,592,007). The rejection is respectfully traversed.

Claim 1 recites, *inter alia*, a “plurality of temporary isolation devices respectively provided between said common signal line and said plurality of dice, ... said temporary isolation device permitting an associated die to be temporarily disconnected from said common signal line.”

Leedy, in contrast, discloses “an integrated circuit ... formed on a ... dielectric membrane” which does not temporarily disconnect a die from the common signal. (Col. 1, lines 55-59) Leedy states that “the primary effect of the [membrane dielectric isolation] MDI fabrication technology [is] the ... manufacture of ... integrated circuits and integrated circuit interconnects ... by completely isolating with a dielectric material each such circuit device from the common substrate upon which they are initially fabricated, and therefore from each other” (Col. 2, lines 10-18)

Leedy does not disclose a “plurality of temporary isolation devices respectively provided between said common signal line and said plurality of dice” as recited, *inter alia*, in claim 1. The Leedy MDI membrane is not provided between a common signal line and a plurality of dice. Instead, the Leedy MDI membrane is provided on top of a substrate, which can then be etched from the back in order to perform additional fabrication processing. Unlike the temporary isolation devices of claim 1, the Leedy MDI dielectric membrane is designed to either provide a permanent separation barrier or it is designed to be etched away as a part of forming components on the backside of epitaxially formed components which the membrane separates before a coupling between components on

either side of the membrane is established.

The Office Action points to Col. 8, lines 44-58, which refer to a local oxidation of silicon (LOCOS) process for providing thermal oxide isolation in conjunction with a MDI membrane. Leedy discloses that the LOCOS processing is used to perform lateral isolation of transistor devices as an alternative to trench isolation, which is permanent, not temporary, as in claim 1. (Col. 8, lines 26-43) Neither the LOCOS process nor the MDI membrane constitute or suggest a “plurality of temporary isolation devices respectively provided between said common signal line and said plurality of dice” as in claim 1.

The Office Action next points to Col. 19, lines 8-37 and lines 43 - 61 which refer to FIG. 10d and FIG. 11a. FIG. 10d and 11a discloses a transistor structure which is epitaxially grown against the MDI membrane where the MDI membrane is “etched free of dielectric with an opening significantly larger than the length ... of the epitaxially grown gate region ...” (Col. 19, lines 8-23) Leedy continues by stating that “the MDI circuit membrane structure provides the capability to position electrode contacts of the semiconductor devices at their backsides” (Col. 19, lines 37-40) Again, there is no disclosure in Leedy of a “plurality of temporary isolation devices respectively provided between ... [a] common signal line and said plurality of dice” as recited, *inter alia*, in claim 1.

The Office Action next points Col. 28, lines 32-49, which disclose “incorporation of ... ICs into a ... MDI circuit membrane ... [Col. 28, lines 32 - 34] which can be used to perform this testing, and in the same step if so desired, to blow anti-fuses to enable the defect free circuits or fuses to disable the defective circuits.” (Col. 28, 46-49) Again, there is no disclosure of a “plurality of temporary isolation devices respectively provided between ... [a] common signal line and said plurality of dice” as in claim 1.

The Office Action next cites Col. 30, lines 2-24, which disclose a “multi-chip module interconnect circuit membrane [with] ... signal pad probe points ... formed on the side opposite of the multiple chip module provid[ing] function test signals to the probe

points” and “of a whole die or a subsection of the IC” (Col. 30, line 3-9) “The probe points ... are aligned over a die (not shown) to be tested on a wafer” (Col. 30, lines 9-10) Leedy discloses a “multi-chip module interconnect circuit membrane [which provides] ... access to the contact pads of the IC from the opposite side ... [of the IC to] permit in-circuit testing [of the IC] to be performed by a separate interconnect circuit membrane fabricated to do such a function (Col. 28, lines 50-60) Once again, there is no disclosure of a “plurality of temporary isolation devices respectively provided between ... [a] common signal line and said plurality of dice” as in claim 1. Accordingly, for at least the foregoing reasons, claim 1 is allowable over Leedy.

Claims 2-24 depend from claim 1 and are allowable for the reasons set forth above with respect to claim 1.

Claims 42-64 have been added. Claim 42, recites, *inter alia*, “a temporary isolation device provided between [a] ... common signal line and [a] ... die, said temporary isolation device being adapted to selectively connect and disconnect said first die from said common signal line.”

Leedy does not disclose “a temporary isolation device provided between [a] ... common signal line and [a] ... first die. Leedy also does not disclose a “... temporary isolation device being adapted to selectively connect and disconnect said first die from said common line.” As stated above, the Leedy membrane is not adapted to provide temporary isolation as the dielectric either forms a permanent barrier or it is etched away before a structure is formed on the backside of the epitaxially formed components on the top of the substrate. Applicant respectfully submits that claims 42-64 are allowable for at least the same reasons as set forth above. Accordingly, claims 42-64, along with claims 1-24, should be allowed.

Applicant gratefully acknowledges the indication of allowable subject matter in claims 22 through 24. However, Applicant believes that independent claim 1, along with new claims 42-64, are also allowable along with existing claims 22-24.

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In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejection of the claims and to pass this application to issue.

The Examiner is respectfully requested to initial and return the PTO Form SB/08 submitted with the Information Disclosure Statement filed on November 13, 2002, evidencing that the references cited therein have been considered.

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Respectfully submitted,

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